

Docket No.: 57800/A400
Amdt date June 8, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please delete original claims 1-41 and add the following new claims:

42. (NEW) A dental diagnostic and treatment apparatus comprising:
an instrument having a forward end equipped with or capable of being equipped with a diagnostic/treatment tool for diagnosing or treating a lesion in an oral cavity; and
light radiating unit having a light source for emitting excitation light and a light source for emitting illumination light into said oral cavity, said light sources being disposed at or near said forward end, wherein
wavelength of said excitation light for exciting light for distinctively detecting said lesion is selected from within a near ultraviolet region of 405 ± 50 nm, a red region of 700 ± 100 nm, an infrared region, or a near infrared region.
43. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light radiating unit is capable of simultaneously radiating said excitation light and said illumination light.
44. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light radiating unit is capable of selectively or simultaneously radiating said excitation light and said illumination light.
45. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said illumination light is white light.
46. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light source for emitting excitation light and said light source for emitting illumination light, that

said light radiating unit has, include a light-emitting device constructed from a light-emitting diode or a semiconductor laser diode.

47. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 46, wherein said light source for emitting illumination light includes a light-emitting device for emitting white light.

48. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 47, wherein said light radiating means is capable of simultaneously radiating said excitation light and said illumination light.

49. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 46, wherein said light radiating unit variably adjusts a light emission level of said light source.

50. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 46, wherein said light radiating unit includes a plurality of light sources for emitting said excitation light at different wavelengths, and is capable of radiating light at one wavelength by switching between said plurality of light sources or is capable of variably adjusting a light emission level of at least one of said light sources.

51. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 50, wherein said light radiating unit includes an excitation light source for emitting said excitation light and a white light source for emitting white light, and is capable of radiating either said excitation light or said white light by switching lighting between said excitation light source and said white light source or variably adjusts a light emission level of at least one of said light sources.

52. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 50, wherein said light radiating unit includes a plurality of light sources for emitting said excitation light at different wavelengths, and is capable of radiating said excitation light at one wavelength

by switching lighting between said plurality of light sources or is capable of variably adjusting an excitation light emission level of at least one of said light sources.

53. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 50, wherein said light radiating unit includes a plurality of excitation light sources for emitting said excitation light at different wavelengths and a white light source for emitting white light, and is capable of radiating said excitation light and said white light by switching lighting between said plurality of excitation light sources and said white light source or variably adjusts a light emission level of at least one light source selected from among said plurality of excitation light sources and said white light source.

54. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light source of said light radiating unit includes one kind of lamp selected from among a halogen lamp, a xenon lamp, a sodium lamp, a metal halide lamp, a mercury lamp, and a blacklight lamp.

55. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 54, wherein said light radiating unit includes an optical filter for selecting light of a designated wavelength from the light emitted from said light source.

56. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 55, wherein the light of said designated wavelength is selected by replacing another filter with said filter having a different characteristic.

57. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 54, wherein said light radiating unit variably adjusts a light emission level of said light source.

58. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light radiating unit includes a plurality of light sources for emitting said excitation light at different wavelengths, and selects the light to be emitted by sequentially switching

between said plurality of light sources, thereby sequentially radiating said light at said different wavelengths in a time-division fashion.

59. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light radiating unit includes a radiating part from which said excitation light and/or said illumination light are radiated toward said lesion, and wherein said radiating part is disposed in said diagnostic/treatment tool or near a mounting portion of said diagnostic/treatment tool.

60. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 59, wherein said excitation light and/or said illumination light are radiated from an area surrounding said diagnostic/treatment tool toward said lesion.

61. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light sources that said light radiating unit has are mounted on a detachable member formed so as to be detachable from said forward end, and

said detachable member includes a connecting member which is capable of detachably engaging with said forward end and which, when placed into engagement with said forward end, supplies power to said light source.

62. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said diagnostic/treatment tool which radiates treatment laser light is attached to said forward end, and

said light sources that said light radiating unit has are disposed on said forward end.

63. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 62, wherein said light radiating unit radiates said excitation light and said treatment laser light onto said lesion in a time-division fashion.

64. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein a radiating part, from which said excitation light and/or said illumination light emitted from said light source that said light radiating unit has are radiated toward said lesion, or each of

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said light sources that said light radiating unit has is provided in an adapter having a mounting member capable of being detachably mounted on the forward end of said instrument.

65. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein said light source for emitting said excitation light and said light source for emitting said illumination light into said oral cavity each include a plurality of light-emitting devices, and wherein

said plurality of light-emitting devices are arranged side by side in an end face portion of said adapter.

66. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein said adapter has a ring-shaped structure which is detachably fitted onto the forward end of said instrument.

67. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein said adapter is equipped with an operating part for operating lighting of said light sources.

68. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 67, wherein said adapter is equipped with a power supply for driving said light sources for lighting.

69. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 68, wherein said power supply is a primary cell or a secondary cell.

70. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein a power supply for driving said light sources for lighting is provided separately from said adapter.

71. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 70, wherein said power supply is detachably mounted on a body of said instrument.

72. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein an operating part for operating lighting of said light sources is detachably mounted on a body of said instrument.

73. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein said mounting member elastically holds said adapter on the forward end of said instrument.

74. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein said adapter is equipped with a filter plate having a plane surface perpendicular to an axis direction of a body of said instrument, said plane surface spreading so as to encircle said body.

75. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 64, wherein when said instrument is equipped with an illuminating unit for illuminating said oral cavity, said adapter is mounted at a position that interrupts illumination light emitted from said illuminating means.

76. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said instrument is a laser handpiece capable of radiating treatment laser light into said oral cavity together with guide light that serves as a guide in locating an area being illuminated with said treatment laser light, and wherein
said excitation light is contained in said guide light.

77. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 46, wherein said light source includes said light-emitting device mounted near a mounting portion of said diagnostic/treatment tool.

78. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 77, wherein said light-emitting device is mounted in such a manner as to encircle said diagnostic/treatment tool.

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79. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 77, wherein said light-emitting device is accommodated in a position near the mounting portion of said diagnostic/treatment tool.

80. (NEW) A dental diagnostic and treatment apparatus as claimed in claim 42, wherein said light radiating unit includes a plurality of said light sources each for emitting excitation light of a different wavelength, and

an operating part capable of switching lighting between said plurality of light sources or capable of variably adjusting a light emission level of at least one of said light sources is mounted on said instrument.